

# **Visual Impairment**

## **What is a Visual Impairment?**

There are legal and educational definitions of visual impairment (VI). Visual acuity, the ability to see objects clearly and to distinguish details at a specific distance, is the criteria used to decide whether an individual is legally blind. Acuity is measured by reading letters or symbols from a chart at a distance of 20 feet. If a person needs to stand at a distance of 20 feet to see what most people see at 70 feet, that person has 20/70 vision.

A person is considered legally blind if they have visual acuity of 20/200 or less in the better eye, with glasses or corrective lenses. A normal field of vision is 180 degrees. A person may also be considered legally blind if their field of vision is limited to 20 degrees or less.

The educational definition of VI is contained in Arizona Revised Statutes §15-761(38), which states: " 'Visual impairment' means a loss in visual acuity or a loss of visual field. . . that interferes with the child's performance in the educational environment and that requires the provision of special education and related services."

Besides impairments to visual acuity and to the field of vision, there are other ways in which vision is affected. The ability of the eye to move (ocular motility) and the ability to merge two separate images into one (binocular vision) can affect a child's vision. Strabismus, the inability to direct the eyes to the same object, may sometimes result in amblyopia. Amblyopia, also known as "lazy eye," frequently results in a reduction or loss of vision in the weaker eye.

Other types of visual impairment include far-focus/near-focus vision problems and nystagmus. A child may not be able to switch easily from far-focus to near-focus vision. For example, it may be very difficult or impossible for a child to copy from the chalkboard (far-focus) to a paper on his/her desk (near-focus). Nystagmus involves rapid and involuntary movements of the eye. It can cause difficulty in focusing the eyes and tracking a line of print in a book, creating reading problems.

## **How Common are Visual Impairments?**

In the 2001-02 school year, 844 students in Arizona were eligible for special education services as a result of visual impairments. This number represents 0.09 percent of the 922,280 children enrolled in Arizona public schools as of October 1, 2001.

## **What Effect Do Visual Impairments Have on a Child?**

Each child with a visual impairment is unique. It is important to discover the method that a student with a visual impairment uses to learn. The age of the child at the time the visual impairment is discovered needs to be considered in planning an educational program. Children who are blind from birth sometimes need different techniques and accommodations than do students who were sighted and lost their vision due to an illness or an accident.

Two children with the same impairment may have different ways of adjusting to a particular disability. Orientation/ mobility training has been found to be helpful to most visually impaired students. The training assists students in learning about their environment so they may move about safely.

Many children can be helped through assistive technology such as Braille 'n Speak or Braille Lite, talking calculators, tape recorders, telescopic aids, magnifiers, tinted lenses, over-lays, and other optical aids. Through the use of OCR (Optical Character Recognition), text may be scanned into a computer which may then use a variety of output methods. A closed circuit television system which enlarges standard print allows students with low vision to use regular textbooks. The Kurzweil Reading Machine is another helpful device for students with visual impairments. It reads books aloud in different voices and at varying rates of speed. Depending on the vision available to a child and the results of an Assistive Technology evaluation, the unique needs of each child should guide what aids and materials are used.

## **References**

Heward, W.L. (1999). *Exceptional children: An introduction to special education*. (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Spungin, S. J. (2001). *When you have a visually impaired student in your classroom: A guide for teachers*. NY: American Foundation for the Blind.

## **Resources**

### **Audio Cassette**

Taylor, T. (1994). *Timothy of the cay* (audio). Prince Frederick, MD: Recorded Books.

### **Books for Adults**

American Foundation for the Blind. (2002). *Guide to toys for children who are blind or visually impaired*. NY: Author

Holbrook, M. C. (ed.). (1996). *Children with visual impairments*. Bethesda, MD: Woodbine House.

Sacks, S. Z. & Silberman, R.K. (1998). *Educating students who have visual impairments with other disabilities*. Baltimore, MD: Brookes Publishing

Vaughan, C. E. (1998). *Social and cultural perspectives on blindness: Barriers to community integration*. Springfield, IL: Charles C. Thomas.

## **Books for Children**

Alexander, S.H., Davis, J. (Ed.) & Carey, J. (Ed.). (2000). *Do you remember the color blue: And questions kids ask about blindness*. NY: Viking Children's Books.

Davis, P.A. (2000). *Brian's bird*. Morton Grove, IL: Albert Whitman Co.

roll, V. L. (1993). *Naomi knows it's springtime*. Honesdale, PA: Caroline House.

Ryden, H. (1997). *Wild horse summer*. Boston: Clarion Books.

Wolffe, K.E. (ed.) (1998). *Skills for success: A career education handbook for children and adolescents with visual impairments*. New York: American Foundation for the Blind Press.

## **Organizations/Hotlines/Web Sites**

American Foundation for the Blind, 11 Penn Plaza, Ste. 300, New York, NY 10001, 212-502-7600 or 800-232-5463, 212-502-7662 TDD, <http://www.afb.org/>

Arizona State Braille and Talking Book Library, 1030 N. 32nd St., Phoenix, AZ 85008, 928-255-5578 or 800-255-5578, [www.lib.az.us/](http://www.lib.az.us/)

Arizona State School for the Blind, 1200 W. Speedway, P.O. Box 85000, Tucson, AZ 85754-5000, 520-770-3700, <http://www.asdb.org/>

Center for the Blind and Visually Impaired, 3100 E. Roosevelt, Phoenix, AZ 85008, 602-273-7411

Council for Exceptional Children, Division for the Visually Impaired, 1110 N. Glebe Rd., Ste. 300, Arlington, VA 22201-5704, 888-232-7733 or 703-620-3660, <http://www.cec.sped.org/>

DB-LINK, 345 N. Monmouth Ave., Monmouth, OR 97361, 800-438-9376, 800-854-7013 TTY, <http://www.tr.wou.edu/dblink>

Disabilities Help Line of Arizona, Community Information and Referral Services, 1515 E. Osborn, The Annex, Phoenix, AZ 85014-4446, 602-263-8856 or 800-352-3792, [www.cirs.org](http://www.cirs.org)

Enhancing Arizona's Parent Network (EAPN), <http://www.ade.az.gov/ess/eapn/>

Foundation for Blind Children, 1235 E. Harmont Dr., Phoenix, AZ 85020, 602-331-1470

National Information Center for Children and Youth with Disabilities (NICHCY), P.O. Box 1492, Washington, D.C. 20013-1492, 800-695-0285, <http://www.nichcy.org/>

Parent Information Network, Arizona Department of Education, Exceptional Student Services, 1535 W. Jefferson, Phoenix, AZ 85007-3280, 602-364-4015 or 800-352-4558, [www.ade.az.gov/ess/pinspals/](http://www.ade.az.gov/ess/pinspals/)

Recording for the Blind and Dyslexic, 14807 N. 73rd St., Ste. 103, Scottsdale, AZ 85260,  
480-443-4580, <http://www.rfbd.org/>

Tucson Association for the Blind and Visually Impaired, 3767 E. Grant Rd., Tucson,  
AZ 85716, 520-795-1331

This information sheet was developed in 1995 and revised in September 2002 by Shirley Hilts-Scott, Parent Information Network Specialist, Contract No. F8-0017-003 with funds allocated by the U.S. Department of Education under IDEA '97. The contents do not necessarily represent the policy of the agency, nor should endorsement by the federal government be assumed. The Arizona Department of Education, a state education agency, is an equal opportunity employer and affirms that it does not discriminate on the basis of race, religion, color, national origin, age, sex or handicapping condition.